

# Patients with psychiatric disorders may develop unrelated physical abnormalities, such as atlantoaxial subluxation, which may worsen neuropsychiatric manifestations.



## Case Report: Uncovering the Hidden: Severe Atlantoaxial Subluxation and Spinal Cord Compression in a Patient with Intellectual Disability on Long-term Risperidone Therapy

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### INTRODUCTION

- Atlantoaxial dislocation is a rare but serious condition that can result from various factors including trauma, congenital abnormalities, or inflammation (Yang, 2014).
- Patients may present with a range of symptoms from mild neck discomfort to fatal outcomes (Wadia, 1967).
- We present a case of a patient with intellectual disability who was referred to psychiatry for suspected antipsychotic-induced parkinsonism, but further investigations revealed atlantoaxial subluxation with myelopathy.

### CASE

- A 44-year-old female with a history of intellectual disability, unspecified psychosis, and medication-induced tardive dyskinesia, who had been taking a combination of risperidone and lamotrigine for several years, was referred to psychiatry for evaluation of possible parkinsonism.
- Signs and symptoms: Subacute and progressive imbalance, repeated falls, psychomotor slowing, repeated staring spells, and bilateral hand weakness with tremors.
- Neurological exam: Mild increased tone throughout, brisk deep tendon reflexes in the arms and legs, decreased arm swings, and moderate bilateral hand grip weakness.
- Imaging: Brain MRI revealed severe atlantoaxial subluxation and spinal cord depression.
- The patient was referred to neurological surgery for occipital cervical fusion and decompression surgery and was placed in a cervical collar while awaiting surgery.

### DISCUSSION

- The presented case highlights an unforeseen diagnosis of atlantoaxial subluxation in a patient with intellectual disability and psychosis.
- Patients with psychiatric disorders may develop unrelated physical abnormalities, such as atlantoaxial subluxation, which may worsen neuropsychiatric manifestations.
- Therefore, it's important for clinicians to take a proactive approach in investigating other potential medical causes for neuropsychiatric symptoms, particularly in patients with psychosis or intellectual disability who may be unable to effectively communicate their physical health condition.

### CONCLUSION

- Clinicians should maintain a high index of suspicion for this infrequent yet severe complication, particularly in the presence of confounding clinical features.

### REFERENCES

- Yang, Sun Y., et al. "A review of the diagnosis and treatment of atlantoaxial dislocations." *Global spine journal* 4.3 (2014): 197-210.
- Wadia, N. H. "Myelopathy complicating congenital atlanto-axial dislocation." *Brain* 90.2 (1967): 449-480.